

F.S.M. Traffic Study Guidelines (12/07)
Checklist for Application Acceptance
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Loudoun County Virginia
Office of Transportation Services

PAR+A Traffic Statement dated Feb. 26, 2009

Application Name: Potomac Road Special Exception Date: 3/10/09
Application Type: Special Exception Reviewer: Dan R. Miller
of Guidelines Satisfied: 13 of 13
Accept or Reject: Accept Comment: _____

- (1) **Study Area:** Roadways internal or adjacent to the development site shall be included in the traffic study. The study area should be defined at the scoping meeting and as a guideline should include other external roads to the extent that the project's generated traffic is anticipated to exceed 10 percent of the road's current/existing traffic volumes (at the time of application).

Does Study Meet Guidelines? yes Comments: _____

- (2) **Traffic Count Locations:** Traffic counts are required on the adjacent roads, the adjacent intersections beyond the project's frontage on adjacent roads in the study area. The AM/PM peak period traffic counts shall not be more than twelve (12) months old at the time of the application submission. Twenty-four (24) hour weekday traffic counts are also required for roadway segments.

Does Study Meet Guidelines? yes Comments: N.A.

- (3) **Trip Generation:** As a general guide to vehicle trip generation, the latest edition of the Institute of Transportation Engineer's (I.T.E.). Trip Generation Report shall be used. These rates may be supplemented by additional information provided by the County. If the applicant chooses to use different rates, they shall be documented and agreed to at the scoping meeting prior to their use in the traffic analyses. Primary trip reductions associated with passby trips and methodologies for trip reductions associated with passby trips shall be discussed and agreed upon at the scoping meeting.

Does Study Meet Guidelines? yes Comments: See page 2 / page 3

- (4) **Traffic Volume Projections**: The traffic study shall include an agreed upon build out year and provide existing and projected traffic volumes, with and without the subject project, for Average Daily Traffic (ADT), as well as AM and PM peak hours. The peak hour of the project/individual land use(s) (as given in the ITE Trip Generation Report) should be added to the corresponding AM/PM existing peak hour of the adjacent roadway traffic volumes (to show the worst case scenario), if the peak hour of the project/individual land use(s) for the generator is greater than the peak hour of the adjacent roadway (per ITE Trip Generation Report). The existing peak hour of traffic on the roads adjacent to the subject project site shall be identified. These traffic volumes shall be provided at roadway intersections and commercial or private accessways/entrances.

Does Study Meet Guidelines? yes Comments: N.A.

- (5) **LOS Analysis**: : Level of Service (LOS) calculations for existing and projected conditions, with and without the subject project, for highway segments, intersection legs, and entrances shall be provided. Calculations shall be in accordance with the Highway Capacity Manual (HCM) and/or the Highway Capacity Software (HCS), or as may be agreed at the scoping meeting. Traffic volumes and LOS information shall be provided for each phase of development, to include conditions at date of project completion. Projections shall also be made for date of completion plus ten (10) years or to an agreed upon forecast year.

Does Study Meet Guidelines? yes Comments: See page 8

- (6) **Minimum Roadway/Intersection LOS Standards**: Recommendations for phased improvements to the road network links in order to maintain an acceptable LOS (minimum LOS "D") shall be provided. For each phase up to and including buildout, a minimum approach and overall LOS "D" at intersections shall apply.

Does Study Meet Guidelines? yes Comments: See page 2

- (7) **Background Traffic Assumptions:** Assumptions which determine projected background traffic, including through traffic growth rate to be applied on roadway links, shall be confirmed at the scoping meeting. The sources for determining future traffic projections will include one or more of the following:

- The Loudoun County Growth Summary or similar documents from Loudoun County.
- The Loudoun County transportation model which incorporates COG's Cooperative Forecasts for Loudoun County.
- Approved developments in the vicinity of the proposed development.

Specific other approved development names and respective development square footage or residential units in the study shall be provided.

Does Study Meet Guidelines? yes Comments: N.A.

- (8) **Traffic/Trip Distribution:** Directional trip distribution information shall be provided for project entrances and collector and arterial intersections within the study area for the phases and categories (e.g., residential, office, retail, industrial and institutional) of development.

Does Study Meet Guidelines? yes Comments: N.A. / See page 8

- (9) **LOS Calculations Assumptions:** Traffic counts and LOS worksheets and projected traffic volume LOS analyses, using agreed upon analysis techniques, including existing AM/PM peak hour signal timing, shall be included as a part of the traffic study.

Does Study Meet Guidelines? yes Comments: N.A.

- (10) **Mode Choice:** Modal split information shall be provided for the phases of the analysis, with sources of information identified (e.g., COG model).

Does Study Meet Guidelines? yes Comments: N.A.

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- (11) **Safety Locations**: Road safety hazards, as identified by the ISTEA set-aside funding criteria and/or as identified by the County at the scoping meeting, within the study area shall be analyzed for all roadway links and intersections in the traffic study.

Does Study Meet Guidelines? yes Comments: See page 8

- (12) **Traffic Mitigation Measures**: If trip reduction factors are used in the study, measures necessary to implement the reduction must be specified, with supporting documentation.

Does Study Meet Guidelines? yes Comments: N.A.

- (13) **Bicycle & Pedestrian Accommodations**: When bicycle and pedestrian accommodations are used to reduce anticipated traffic volumes, a description of the physical and functional characteristics of the proposed bicycle and pedestrian accommodations shall be provided. If such separate bicycle accommodations (e.g., striped lanes or multi-purpose trails) are anticipated, they shall also be identified. A description of the functional characteristics shall be provided to identify the transportation options that these accommodations provide (e.g., pedestrian access to retail center, safe bicycle route to elementary school, inter-parcel connections to adjacent neighborhoods, access to W&OD trail, etc.)

Does Study Meet Guidelines? yes Comments: N.A.

lmm/

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Date: February 26, 2009

Mr. George Phillips
County of Loudoun
Office of Transportation Services
1 Harrison Street, SE, 4th Floor
Leesburg, VA 20177



**Re: POTOMAC RADIO SPECIAL EXCEPTION
TRAFFIC STATEMENT
PHR+A F- 10347-4-0**



CORPORATE:
Chantilly

VIRGINIA OFFICES:
Chantilly
Charlottesville
Fredericksburg
Harrisonburg
Leesburg
Newport News
Norfolk

Winchester
Woodbridge

LABORATORIES:
Chantilly
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Dear Mr. Phillips:

Per our phone conversation, the following addresses the County's request for a Traffic Statement to cover the above project; please find attached material to assist in your deliberations.

PHR+A has used the standard Loudoun County Traffic Study Guidelines to produce a summary of the aspects examined in this traffic statement. The attached Figures summarize the existing traffic and access situation in the field, based on:

Figure A: Illustrates the general location of the Radio Tower, which is east of the existing Loudoun County Parkway.

Figure B: Illustrates the current traffic conditions in 2009.

Figure C: Illustrates the existing access points off Loudoun County Parkway (unfortunately the aerial photo base is outdated, and the Loudoun Water site is now completed).

PHR+A undertook PM Peak counts at Aquia Way (the main access road into Loudoun Water) on Wednesday February 18, 2009 and found that the existing PM Peak turning volumes onto Loudoun County Parkway, were 51 vph to the north and 53 vph to the south at Aquia Way. Very little traffic was observed at the Truck Access point further to the north. The volume along Loudoun Parkway was 407 vph southbound and 731 vph northbound. With turn lane provisions at the Truck Access point (i.e. Left and Right Turn lanes), no delays were observed.

Figure D: Illustrates the existing access point for trucks, via Loudoun County Parkway.

Traffic Statement Summary

1. Access is readily available to the Potomac Radio Tower site through the existing Truck Access point north of Aquia Way (see attached Figure B) off Loudoun County Parkway.
2. The current traffic volume on this section of Loudoun County Parkway is relatively low at the present time, but the access points have been planned to accommodate future traffic generated by the parcels. In this case, the trips generated are very low during the construction phase (because of the use of prefabricated sections), thus reducing the time to erect. Based on information provided by the Owner, once erected the Tower and facility will be inspected on a regular basis by one vehicle, typically at monthly intervals. Additional trips may be required if emergency service is required.
3. The erection of the Radio Tower will thus not cause any undesirable impact on the existing road network with the construction of Loudoun County Parkway to four (4) lanes of the CTP six (6) lane section, and adequate turns provided for existing truck access to Loudoun Water, additional mitigation is not required.

We trust this information assists the County deliberations on this matter.

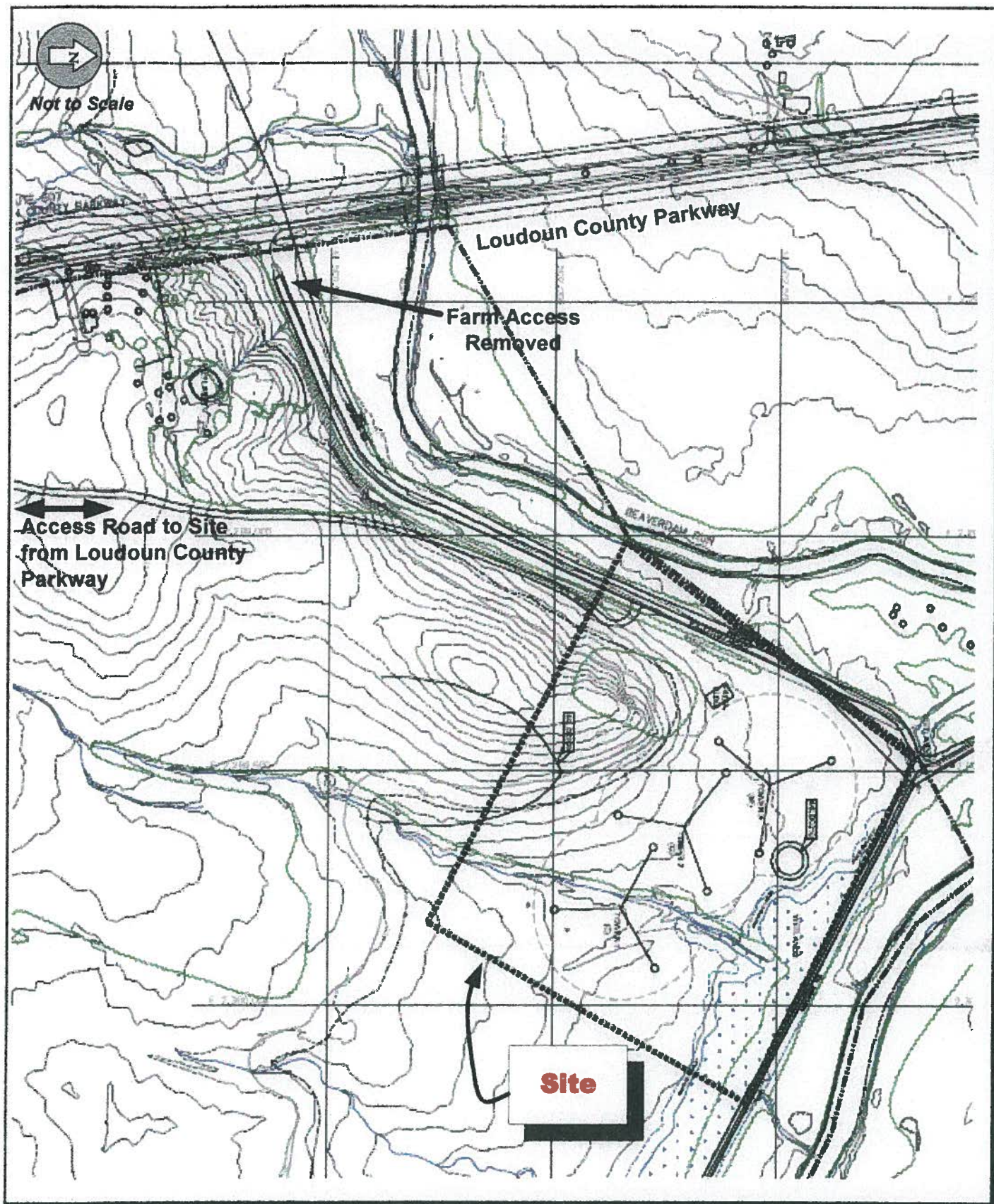
Respectfully Submitted,
PATTON HARRIS RUST & ASSOCIATES



Peter J. Steele
Senior Transportation Planner

Attachment Figures A, B, C, & D and summary based on standard Loudoun County Traffic Study Guidelines.

Cc: Mark A. Thomas



PHR+A

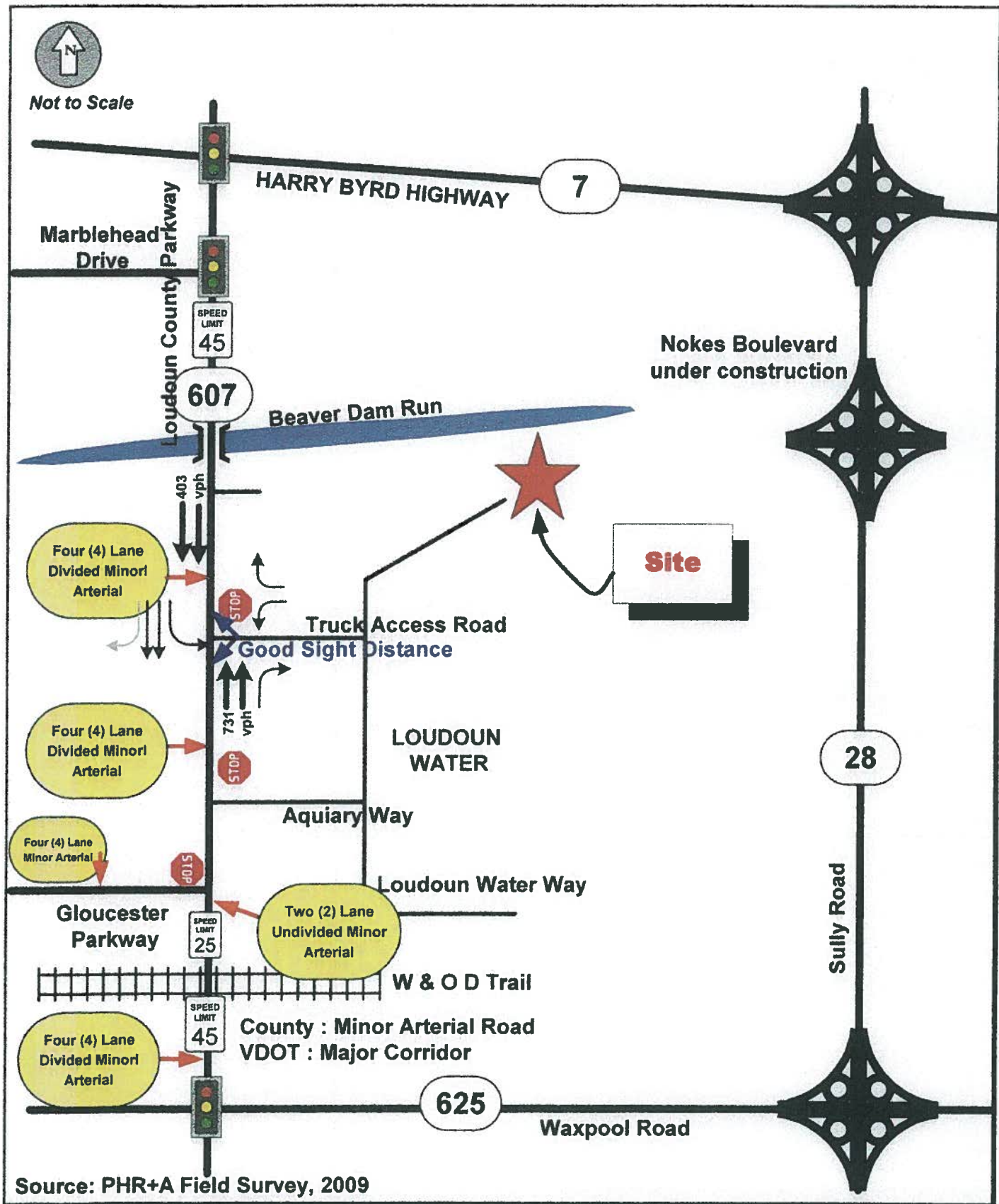
Potomac Radio

February, 2009

Site Location

10347-4-0

**Figure
A**





Source: Microsoft Live Earth-Does not show existing road access to Loudoun Water

PHR+A

Potomac Radio

February, 2009

Access off Loudoun
County Parkway

10347-4-0

Figure
C



Access off Loudoun County Parkway through the existing Truck Access Road (looking East). Loudoun County Parkway is four (4) lanes divided at this point, with separate Left and Right Turn lanes into the site.

Application Name: Potomac Radio

Date: 2/13/09

Application Type: Site Plan

Attendees: (by verbal agreement) George Phillips (Loudoun County) via phone agreed to Traffic Statement on access, trips and safety issues.

- (1) **Study Area:** Comments: Loudoun County Parkway adjacent to access to Loudoun Water (Aquairy Way), Ashburn
- (2) **Traffic Count Locations:** Comments: Will provide all site entrance in the PM only. Examination of impact during construction Phase and also regular monthly maintenance visits.
- (3) **Trip Generation:** Comments: ITE Trip Generation Manual rates for Radio Tower not available. Applicant notifies that construction period of approximately one month will involve relatively few construction vehicles during normal working hours. Once completed the Tower needs regular maintenance visits (say once every six months). Access is provided through the truck access off Loudoun County Parkway into the Loudoun Water site.
- (4) **Traffic Volume Projections:** Comments: Not applicable due to the short period of construction and then only on-going maintenance visits to the site.
- (5) **LOS Analysis:** Comments: Given the low volume of vehicles involve, and the nature of the current roadway network (i.e. still being developed) there will be no change in Level of Service caused by this project; although given the high speed of some vehicles in the 45 MPH posted area, the risk of accidents remains a slight probability.
- (6) **Minimum Roadway/Intersection LOS Standards:** Comments: The attached volumes indicate that the addition of a few vehicles will have negligible impact on the operation at this intersection.
- (7) **Background Traffic Assumptions:** Comments: This section of the Parkway is constructed at four (4) lane Minor Arterial with appropriate turn provisions. Parkway is posted at 45 MPH.
- (8) **Traffic/Trip Distribution:** Comments: n/a
- (9) **LOS Calculations Assumptions:** Comments: n/a
- (10) **Mode Choice:** Comments: n/a
- (11) **Safety Locations:** Comments: Site inspection indicates that there is adequate sight distance at the throat of this intersection in both directions; although the high speed of some vehicles along Loudoun County Parkway is of concern. This will change over time as more vehicles use this route, and thus the link will come under greater scrutiny by Loudoun Police.
- (12) **Traffic Mitigation Measures:** Comments: n/a
- (13) **Bicycle & Pedestrian Accommodations:** Comments: n/a